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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,342	03/09/2001	Faramarz Farahi	33377/196876	7331
7590	12/01/2004		EXAMINER	
Andrew F. Sayko Jr. P.O. Box 6339 Shallote, NC 28470			ULLAH, AKM E	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/803,342	FARAHI, FARAMARZ	
	Examiner	Art Unit	
	Akm Enayet Ullah	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 97-117 and 133 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 97-117 and 133 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Status of the Application

This application claims benefit of 60/ 194,663 filed on 04-04-2000.

Claims 97-117 and newly added claim 133 are pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 97 – 117 and 133 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heming et al. (U.S.P.NO. 5,480,687) in view of Bruce et al (USPNO. 5,250,096) or Deacon et al (USPNO. 5,887,089) or Glass et al (USPNO. 5,363,398) or Feldman et al (USPATNO. 5,249,195).

Heming et al. (U.S.P.NO. 5,480,687) disclose the gist of the invention. Note that in any optical interconnect device having sol-gel based material used for active region which is an inherent of this reference.

Heming et al differs from the claimed invention because he does not explicitly disclose a substrate comprising a sol-gel based material including an active region defined in the sol-gel based material.

Such substrate comprising a sol-gel based material including an active region defined in the sol-gel based material is very elementary teaching in this art.

Bruce et al (USPNO. 5,250,096) is evidence that ordinary skill in the art would find a reason, suggestion or motivation to have a substrate comprising a sol-gel based material including an active region defined in the sol-gel based material as claimed in the optoelectronic device.

It would have obvious under 103 to use the sol-gel based material including active region defined in the sol-gel based material as taught by Bruce et al (column 4, second paragraph) with the Heming et al device since, with both device directed to a common use in the same environment, there is an implied suggestion for applying the teaching of one to the other. That is skilled worker who is pressured to have knowledge of the prior art, with these two references (Heming et al in view of Bruce et al) before him, would immediately recognize the desirability of using such sol-gel based material teachings taught by Bruce et al to the device of Heming et al.

In re to claims 101,102,112 and 114-117 limitations a rare earth ion chosen from the group consisting of erbium, ytterbium and neodymium ions; grating structures have a fixed periodicity: the plurality of optoelectronic interconnects are point-to-point waveguide and plurality of optoelectronic interconnects are point-to-multipoint waveguides are inherent in the above mentioned references and also very elementary teaching in this optoelectronic device as is shown by the above mentioned references.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize such optoelectronic device which consist of an erbium ions for an active region, as claimed the instant invention.

It is within the level of ordinary skill in the art to interconnects between a plurality of optoelectronic which are point to multipoint waveguides and also point to point waveguides in order to allow complex circuitry to be integrated in an all- optical environment.

Therefore, one of ordinary skill in the art would have found it an obvious design choice to incorporate an optoelectronic device having a flexible substrate and optical interconnect comprising a sol-gel based material formed on the flexible substrate which would include point to point waveguides, point to multipoint, multipoint to multipoint waveguides or in a combination, as it claimed in Heming et al in view of the abovementioned reference.

Note that prior art may not need to express everything as it claimed as is cited by a recent case law as follows:

Schering Corp. v. Geneva Pharmaceuticals Inc., 64 USPQ2d 1032 (DC NJ 2002) Decided August 8, 2002. **The prior art disclosure need not be express in order to anticipate.** Even if a prior art inventor does not recognize a function of his or her process, the process can anticipate if that function was inherent. **To establish inherency,** the extrinsic evidence must make clear that the missing descriptive matter **is necessarily present** in the thing described in the reference, and **that it would be so recognized by persons of ordinary skill.** Inherency is not necessarily coterminous with the knowledge of those of ordinary skill in the art. Artisans of ordinary skill may not recognize the inherent characteristics or functioning of the prior art. However, the discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer. Insufficient prior understanding of the inherent properties of a known composition does not defeat a finding of anticipation.

Applicant's arguments with respect to claims 97-113 and 133 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akm Enayet Ullah whose telephone number is 571-272-2361. The examiner can normally be reached on Monday through Wednesday, 5:30 am till 3:00 pm

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on 571-272- 2344. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7721 for regular communications and 703-308-7721 for After Final communications.

Art Unit: 2874

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Akm Enayet Ullah
Primary Examiner
Art Unit 2874

AUllah
November 28, 2004